

**WHAT IS CLAIMED IS:**

1. A recording medium having a data structure for managing reproduction of at least multiple reproduction path video data recorded on the recording medium, comprising:

a data area storing clip files of at least a video data stream, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream.

2. The recording medium of claim 1, wherein the clip files are interleaved.

3. The recording medium of claim 2, wherein the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions.

4. The recording medium of claim 2, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

5. The recording medium of claim 4, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

6. The recording medium of claim 5, wherein more than one clip file is

associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

7. The recording medium of claim 2, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

8. The recording medium of claim 7, wherein more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

9. The recording medium of claim 1, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

10. The recording medium of claim 1, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during

reproduction of the clip files.

11. The recording medium of claim 10, wherein more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

12. A method of recording a data structure for managing reproduction of at least multiple reproduction path video data on a recording medium, comprising:

recording clip files of at least a video data stream in a data area of the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream.

13. A method of reproducing a data structure for managing reproduction of at least multiple reproduction path video data recorded on a recording medium, comprising:

reproducing clip files of at least a video data stream from the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream.

14. An apparatus for recording a data structure for managing reproduction of at least multiple reproduction path video data on a recording medium, comprising:

a driver for driving an optical recording device to record data on the recording medium;

an encoder for encoding at least multiple reproduction path video data; and

a controller for controlling the driver to record clip files of at least a video data stream output from the encoder in a data area of the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream.

15. An apparatus for reproducing a data structure for managing reproduction of at least multiple reproduction path video data recorded on a recording medium, comprising:

a driver for driving an optical reproducing device to reproduce data recorded on the recording medium;

a controller for controlling the driver to reproduce clip files of at least a video data stream from the recording medium, each clip file associated with one of a common reproduction path portion and a particular reproduction path portion of the video data stream.